

# Notice of Allowability

Application No.

10/693,619

Examiner

Marissa J. Detschel

Applicant(s)

RONNEKLEIV, ERLEND

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## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed January 8, 2007.
2. ☒ The allowed claim(s) is/are 1 and 3-32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20070226</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|  | 9. <input type="checkbox"/> Other _____.   |

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Randol W. Read (RN 43,876) on February 28, 2007.

The application has been amended as follows:

In claim 27, line 7, the phrase "and configured" has been replaced with --and wherein the reference interferometer is configured--

### ***Response to Amendment***

The amendment filed on January 8, 2007, has been entered. The amendments to claims 1, 10, and 15 to overcome the rejections under 35 U.S.C. 101 are accepted by the Examiner. In view of these amendments, the rejections under 35 U.S.C. 101 are withdrawn.

### ***Allowable Subject Matter***

Claims 1 and 3-32 are allowed in view of the prior art.

The following is an examiner's statement of reasons for allowance:

As to claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for sensing comprising interrogating at least one optical sensor and at least one optical reference device with a light source, wherein the reference device is located in close proximity with the optical sensor such that both are subject to substantially equal environmental conditions, in combination with the rest of the limitations of claim 1. Claims 3-9, which depend from claim 1, are also allowed in view of their dependency on an allowed claim.

As to claim 10, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for sensing comprising interrogating a sensor interferometer and a reference interferometer with a light source, wherein the reference interferometer is located in close proximity with the optical sensor such that both are subject to substantially equal environmental conditions, in combination with the rest of the limitations of claim 10. Claims 11-14, which depend from claim 10, are also allowed in view of their dependency on claim 10.

As to claim 15, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method comprising interrogating an optical sensor and reference device co-located with the sensor and correcting the sensor signal for errors due to Doppler shifts based on the reference signal, in combination with the rest of the limitations of claim 15. Claims 16-19, which depend from claim 15, are also allowed in view of their dependency on claim 15.

As to claim 20, the prior art of record, taken alone or in combination, fails to disclose or render obvious a sensor system comprising at least one optical sensor sensitive to a measurand and at least one optical reference device coupled with a light source, wherein the reference device is located in close proximity with the optical sensor such that both are subject to substantially equal environmental conditions, wherein the reference device is insensitive to the at least one measurand, in combination with the rest of the limitations of claim 20. Claims 21-26, which depend from claim 20, are also allowed.

As to claim 27, the prior art of record, taken alone or in combination, fails to disclose or render obvious a sensor system comprising at least one sensor interferometer sensitive to a downhole parameter and at least one reference interferometer coupled with a light source, wherein the reference interferometer is located in close proximity with the sensor interferometer such that both are subject to substantially equal environmental conditions and the reference interferometer is configured to be insensitive to the downhole parameter, in combination with the

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rest of the limitations of claim 27. Claims 28-30, which depend from claim 27, are also allowed in view of their dependency on claim 27.

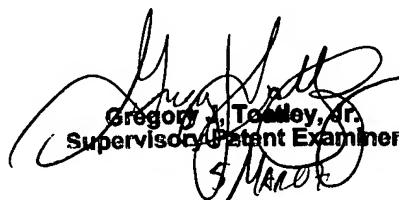
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa J. Detschel whose telephone number is 571-272-2716. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on 571-272-2059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 28, 2007  
MJD

  
Gregory J. Toatley, Jr.  
Supervisory Patent Examiner